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ABSTRACT

Twelve people living at the O. D. Heck Developmental Center Autism Program participated in this study, along with nine people who provided facilitated communication (FC) support to them. The 12 individuals were selected because they were the most competent producers of FC in the program. The study involved showing pictures of everyday objects to the participants, within the following three conditions: (1) only participants were shown a picture and asked to type out a label for the object shown, with facilitation; (2) only participants were shown a picture and asked to type out a label or description of the object, without facilitation; and (3) both participants and facilitators were shown pictures, and each was unable to see the picture the other was shown, which were the same in half the trials and different in the other half. Findings showed that participants were unable to produce accurate or correct labels or descriptions, by either typing independently or when being facilitated, in the absence of a picture being shown to the facilitator. On trials when the facilitators and participants had different cards, the only "correct" labels were for the cards shown to the facilitators and not shown to the participants. This finding demonstrates that the facilitators were not only influencing (unknowingly), but in fact, determining what was typed. (Contains 25 references.) (JDD)

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An Experimental Assessment of Facilitated Communication

A Technical Assistance Report
on Best Practices
- Report #92-TA1

Autism Program
O. D. Heck Developmental Center/
Eleanor Roosevelt Developmental Disabilities Services Office
Schenectady, New York

August, 1992

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Elin M. Howe, Commissioner

An Experimental Assessment of Facilitated Communication

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Office of Mental Retardation and
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A Technical Assistance Report on Best Practices

Report 92-TA1

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Executive Summary

This report presents a detailed description and analysis of a quantitative study of "facilitated communication", or "FC". Facilitated communication refers to the provision of (usually) physical assistance to an individual to allow him or her to more readily spell out words on a keyboard template, a keyboard device, a computer, typewriter, or specially designed spelling device. Although there is considerable qualitative reporting that has emerged from a very small sample of programs in support of FC, there is only a very small literature providing quantitative evidence regarding its benefits, and much of the latter literature either provides marginal or negligible support for it. FC requires quantitative research and independent evaluation of the communications that are produced because these communications can have profound implications for empowering individuals who are demonstrably able to validly communicate using this technique. Equally important is the need to prevent individuals from being misrepresented or manipulated by those who may unknowingly influence the communications produced in cases where communications cannot be validated. Although such concerns are immediately pertinent to critical resource allocation decisions, we would argue that the ethical issues are far more compelling.

Twelve people living at the O. D. Heck Developmental Center Autism Program and nine people who provided FC support to them took part in this study. The twelve individuals were selected because they were the most competent producers of FC in the program at the time. All were reported to be apparently typing valid communications (according to the facilitators), including words, phrases, and in most cases, full sentences and extended conversation. There were three conditions within the study, involving showing pictures of everyday objects to the participants. Standard research randomization methods were used in the presentation of pictures. In the first condition, only participants -- i.e., people with autism living at the program -- (and not the facilitators) were shown a picture and asked to type out a label for the object shown, and they were provided with facilitation. In the second condition, participants were shown a picture (and their facilitators weren't shown the picture) and asked to type out a label or description for the object without facilitation or other physical contact. In the third condition, both the facilitators and participants were shown pictures. Each was unable to see (as verified by review of videotapes) what picture the other was shown. On one-half of the trials the pictures were the same, and in the other half the pictures were different. Facilitators were aware that their picture might be the same or different. Responses were coded as correct or incorrect by independent reviews by five judges, consisting of four impartial professionals and each respective facilitator.

The findings showed that these participants were unable to produce accurate or correct labels or descriptions, by either typing independently or when being facilitated, in the absence of a picture shown to the facilitator. Additionally, when the facilitator was shown a stimulus picture at the same time, the performance of ten of twelve participants improved (two continued to completely unsuccessfully label the pictures). However, on trials when the facilitators and participants had different cards, the only "correct" labels for cards were for the cards shown to the facilitators and not shown to the participants. This finding demonstrates that the facilitators were not only influencing (unknowingly), but in fact, determining what was typed.

This finding is of great importance for the continued communication training of the particular participants who took part in the study. But there are further significant implications. Prior to this study, many clinicians in the Autism Program, as well as direct care staff, believed that the communications these people produced through FC were valid. They had acted on these communications as indications of preference, personal belief, necessary treatments, and supports. The findings from this study suggest that they were uniformly incorrect in this appraisal.

These findings imply that the present qualitative and circumstantial methods that are now typically used (if any methods are used at all) to evaluate FC are inadequate and could lead to

inadvertant, unknowing, albeit benevolent, misrepresentation of individual preferences, posing serious ethical concerns. Some of these considerations are discussed at length in the discussion section, and administrators are referred to this material as an introduction to unforeseen concerns that have important administrative and policy implications.

An Experimental Assessment of Facilitated Communication

One treatment that is growing in importance and proliferating rapidly in use today is "facilitated communication". Facilitated communication refers to the provision of physical assistance to an individual to allow him or her to more readily spell out words on a keyboard template, a keyboard device, a computer, typewriter, or specially designed spelling device (hereafter we shall refer to this process as "FC"). The intent of assistance is to help the individual to more effectively control or initiate movements of his or her hand to type out a message. Although proposed for use primarily with people with autism (Biklen, 1991), we have found its use often has been expanded to include non-verbal people with apparent severe or profound mental retardation and no discernible characteristics of autism. It is important to distinguish FC from the larger realm of "augmentative communication". Augmentative communication involves strategies and devices which permit an individual who could not otherwise communicate to do so with others independently (e.g., use a symbol board to communicate independently by pointing). In FC, with the exception of those individuals who eventually use a keyboard with no assistance, some degree of assistance is provided and the person does *not* communicate independently.

Because assistance is provided to the person during the communication act there is the possibility that the facilitator (i.e., the person helping) may wittingly or unwittingly influence what the person types. Although the intent of facilitation is to help the person to "get his or her own words out" (Biklen, 1992a, p. 242), this intent may not be fully realized in each instance, and the validity of the communication can be compromised (Cummins & Prior, 1992). In a worst case scenario, all communication from the individual could be unknowingly determined by the facilitator. In less extreme circumstances it is conceivable that some statements made through facilitation are compromised, while others are not. In FC the facilitator is supposed to decrease physical contact as the individual's keyboarding skills improve, possibly moving from initially supporting the person's hand to eventually maintaining a touch on the shoulder.

However, as long as there is any continuing physical contact (and perhaps verbal interaction) during typing, the risk of inadvertent cuing and contamination of communication exists. Biklen (1992d) has observed that:

> "...it is possible that in facilitation...cuing can occur. Even though a person may have 'validated' his or her communicative ability on previous occasions, we cannot be absolutely certain that every subsequent communication is the person's own words, and not those cued by others."(p. 16).

Moreover, Jacobson and Mulick (1992) have noted that facilitators are often not trained in close self-monitoring, which could be necessary to accurately detect inadvertent cuing of responses. Many facilitators have not had the opportunity for training in a therapeutic discipline, which could provide them with an understanding of the standards that should be met before a teaching technique becomes widely accepted.

Evidence About Facilitated Communication

Two types of research have very recently begun to emerge on FC, although very little research with generalizable application has emerged at this point. The first type of research is based on systematic

participant observation within a qualitative framework, and describes both the methodology of FC and its apparent effects (e.g., Biklen, 1991, 1992a, 1992b, 1992c; Biklen & Schubert, 1991; Biklen et al., 1991). Although there has been some debate within the speech pathology community (Calculator, 1992; McLean, 1992), controversy about the technique's use has not been heated or forceful. The second type of research, a largely reactive literature at this time, includes summaries of quantitative research undertaken by the Australian government or advisory bodies and original quantitative studies (Cummins & Prior, 1992; Hudson, Melita, & Arnold, under submission; Intellectual Disability Review Panel, 1989; Interdisciplinary Working Party on Issues in Severe Communication Impairment, 1988). In the context of this very limited knowledge base, FC has become widely used in several areas of the United States, with both parents and professionals using it in ways that professional ethical and practice standards suggest may be indiscriminate.

Although there has been sincere disagreement about which validation techniques are appropriate with FC (Biklen, 1992c; Cummins & Prior, 1992), each of the quantitative sources contains some cases where facilitators believed that individuals were communicating with them, and it subsequently proved impossible to validate that the communications were uncontaminated. It seems fairly clear that at least some, and possibly many, facilitators are unknowingly influencing (or producing) the communications that they believe to represent the individual's free expression. Most telling, perhaps, is that some people who are being facilitated produce statements of facts that are known only to the facilitator. This phenomenon is cited in the Australian report of the Intellectual Disability Review Panel (1989), and has been reported to us as occurring in the United States as well, by facilitators who were, at the time, unaware that this had occurred elsewhere.

The existing evidence supports two major conclusions. The first is that, as we've noted above, sometimes facilitators are influencing and invalidating facilitated communications. However, this issue aside, it also appears that some people do benefit from facilitation, by showing that they *unexpectedly* become skilled in *independent, unassisted* typing (Biklen, 1991). There may be particular applicability of the procedure, within some limitations, for some people with cerebral palsy who have unrecognized, and untestable by conventional means, communication skills (Biklen, 1991; Intellectual Disability Review Panel, 1989). This suggests that there is a pressing need to objectively validate the phenomena of FC. Nonetheless, detection of possibly contaminated communications remains very difficult because the ideology of FC incorporates the premise that the person's communication should not be explicitly questioned or tested.

This premise reflects a central element of the process, which stresses the necessity of forming a positive, confidence-inspiring relationship with the individual in order to enable and motivate him or her to communicate. The origin of the premise that one should refrain from testing the validity of FC appears to be the assumption that this would undermine the relationship, but it is unclear whether this has been verified systematically. Acceptance of this premise makes quantitative evaluation of FC very difficult.. Failure to validate communication can be attributed to a breakdown in the relationship rather than facilitator influence or control. In our view, this is not a scientifically justifiable position for professionals engaged in testing a new therapeutic technique. The ability to objectively demonstrate relatively high communicative competence would, *by prevailing rights statutes*, provide any individual who can do so with dramatically increased opportunities to exercise his or her civil rights to self-determination.

Because there may be secondary gains for people from increased socialization with facilitators, and perhaps, among peers if conversations are facilitated with peers, why, then is the validity of communications important? The most significant reason is that some communications will be the basis for actions that have major consequences for the person being served. Requests for changes in living arrangements, medications, planned services and training, vocational involvement, and a wide range of expressed preferences, in addition to providing consent for medical and other treatments, may occur

through FC. The importance of validating the source of facilitated communications is especially important because we have received numerous anecdotal reports of intelligence testing procedures employing facilitation.

Thus communications that can be validated provide the chance for much greater influence by the individual over his or her life-style and daily activities. By the same token, unwitting or unintended contamination of facilitated communications completely compromises independent (i.e., independent from staff) representation of an individual's best interests. In the case where the facilitator is unaware that he or she is producing the communications, these communications may form the basis for life-style changes for consumers that are entirely incompatible with their developmental status. An example of this incompatibility would be enrolling a person with a true mental age of three years (as opposed to a facilitated adolescent or adult mental age) in college calculus and physics classes.

Implications for Concerned Professionals

A case from Australia graphically illustrates the practical and legal need to validate communications. A young woman was removed from her home by a government agency after alleging through facilitation that she had been sexually abused by her father. Fourteen months later, following determination through an objective, peer-reviewed process that her communications were not valid (i.e., were unwittingly produced by the facilitator), she was returned home to her family. Her family was forced during this time to fight for her return, defend itself from accusers, and avoid stigmatization because of these invalid accusations. The process used for objective validation of her communications is detailed by Hudson, et al. (under submission).

This case is important not only in depicting highly undesirable consequences of invalid communications, but also in clarifying issues that are of utmost professional significance. The Guardianship and Administration Board (1992), in setting forth its final decision, stated: "The Regional Manager of Community Services Victoria... (and two others)... also believed that Carla (pseudonym) could communicate by reason *in part that she did* (italics added). In the light of the long standing controversy regarding this form of communication, it is generous to consider this logic naive" (p. 5, underlining not added). Stated more broadly, it appears that the Board arrived at the conclusion that this type of reasoning was circular. Current qualitative research demonstrates face validity of communications, but we propose that validation, in the individual and group instance, requires much more extensive convergent, concordant, and differential validation to merit full acceptance, because of the quasi-experimental nature of the evidence available for FC to date (Cook & Campbell, 1979). Biklen (1992) has suggested that new perspectives on autism should not be rejected solely because they are inconsistent with prevailing assumptions about autism. Just as clearly, however, there is no reason to accept unexpected communicative competencies as real simply because they are inconsistent with prevailing assumptions.

The Present Study

The study of FC reported here was conducted at the Autism Program of O. D. Heck Developmental Center, a large state-operated ICF-MR located in Schenectady, New York. The Autism Program was established in 1979 and has been in continuous operation since then.

During the summer and fall of 1991, interest in FC developed among a few clinical staff of the Autism Program and initial attempts to use the technique had begun in the first half of 1991. Three of these professional staff eventually attended one of the two-day training sessions offered through Syracuse University in the fall of 1991. Subsequent to this training, these staff in turn trained many other clinical, supervisory, and direct-care workers in the program. The use of FC proliferated rapidly during this period, with eventually twenty-five (25) people with autism and twenty-one (21) staff actively pursuing

and using the technique. In addition, during this time (winter of 1991/92) several workshops were given by these same professionals, offered to interested people within the developmental center, its community services agency, and other interested people from the community.

Recognizing that there was a need to clearly document the validity of the communications derived from facilitation, the clinical coordinator designed a study protocol to validate individual communications, with advice from the facility director and consultation by state agency researchers. Throughout this study control and management of the research was retained by the principal investigator, assisted by the Autism Program director. Readers should note that the original stated purpose of the research was to validate the facilitated communications which were being regularly produced, and that both of the researchers began the study with every expectation that it would provide at least some objective evidence that communications were valid. They hoped to quell the skepticism of their peers about FC.

Method

Participants

The Autism Program is a 24-hour, seven-day a week self-contained residential and day services program for adolescents and adults with autism who also manifest severe behavior disorders. Participants were selected from among the 48 people in the program. Selection of participants was based on individual achievement of an apparent level of success with FC, that is, reliably typing at least whole single words during FC. In fact, nine of the twelve individuals were reported or observed to regularly type out full sentences, and in some cases, engage in extended conversations through FC that involved sophisticated (e.g., abstract) concepts.

Although many of these people were engaging in apparently successful FC with more than one facilitator, for the purposes of the study each person with autism was paired with a single facilitator with whom he or she appeared to perform well. These pairings remained constant throughout the study. Because we were examining the possible influence of the facilitator on communications as well as the validity (i.e., independence) of the participant's output, it is perhaps appropriate to think of the subjects as participant/facilitator pairs. These pairs were, then, essentially previously existing pairs of participants and staff who already engaged in apparently successful FC.

A total of thirteen people were initially selected as possible participants in the study, with a corresponding staff facilitator for each. All participants had been using FC for at least five months and for as long as one year. One person refused to participate (as reported through FC) when the study began. Therefore, a total of twelve people completed all trials. Informed consent was obtained from each of these people via FC and, in consideration that the validity of their FC had not yet been independently verified, from the parents, guardians, or facility consent committee.

A diagnosis of autism is generally required for eligibility for the Autism Program and was present for all participants. These diagnoses were based on DSM-IIIR criteria (American Psychiatric Association, 1987), with supporting sub-test scores from the Autism Behavior Checklist (ABC) of the Autism Screening Instrument for Educational Planning (ASIEP)(Krug, Arick, & Almond, 1980). Independent verification of diagnosis was provided for each individual by licensed psychologists who were specialists in autism, from the Diagnostic and Research Clinic of the New York State Institute for Basic Research in Developmental Disabilities, in Staten Island, New York. Key information about the participants is presented in Table 1.

Materials and Setting

An overriding concern in choosing the procedures used was participant motivation and

psychological well-being. Every effort was made to maintain a typical, comfortable environment for the participants, presenting a minimum degree of novelty.

Presentation of visual, pictorial stimuli allowed the participant and facilitator to be free of unusual or intrusive devices (such as headphones or blinders). Participants had frequently been exposed to such stimuli in their day program activities, for example, as picture cards used in lessons in vocabulary skills. Pictorial stimuli were often used in clinical assessments and during initial FC set-work sessions. Pictorial stimuli were also being used routinely at the time of the study to assess language competence through the use of FC as a supplement to traditional testing materials (and reportedly successfully so).

Table 1:
Demographic Information and Description of Participants

Subject I.D.	Age Yr-Mo	Sex	Level of MR	ABC Score[1]	Prior Expressive Language Competence
1	21-7	M	Profound	80	Non-verbal; some sounds & gestures
2	30-4	M	Profound	70	Non-verbal; some sounds & gestures
3	19-0	M	Severe	93	Non-verbal; less than 5 signs; some gestures
4	26-3	F	Severe	86	Non-verbal; several signs, some vocalizations
5	24-2	M	Profound	72	Non-verbal; a few signs used for basic wants & needs
6	28-2	M	Profound	69	Non-verbal; less than 5 signs
7	23-4	F	Profound	73	Non-verbal; 2-3 approximate signs
8	26-5	M	Profound	87	Limited vocalizations & gestures; some signs
9	22-7	M	Severe	79	Non-verbal; several approximate signs
10	17-5	M	Profound	43	Non-verbal; communication board; some vocalizations
11	16-4	M	Profound	89	Non-verbal; no spontaneous signing
12	27-2	F	Severe	90	Non-verbal; some sounds & gestures

[1] An Autism Behavior Checklist (ABC) score of 67 or above is considered to indicate a high probability of an autism diagnosis.

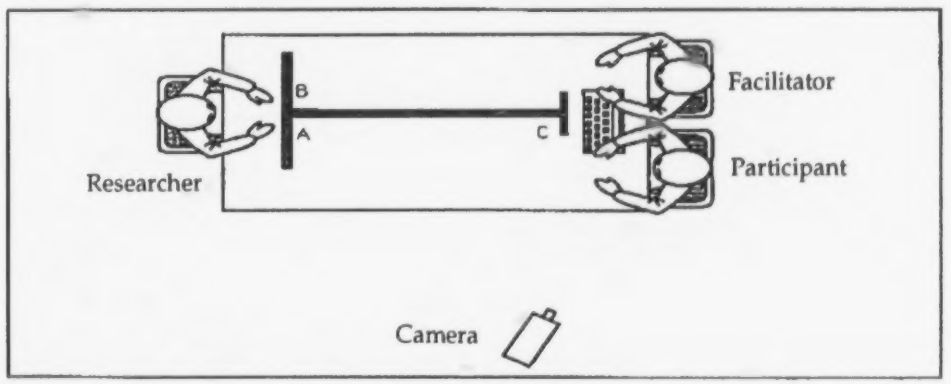
The facilitator sat beside the participant when providing FC in all conditions. Having the facilitator sit next to the participant at a table was essential to maintaining a situation which would normally occur during FC.

The stimuli were commercially available 22.2 cm (8.75") x 17.1 cm (6.75") color photographs of common objects in the paticipants' day-to-day experience (Developmental Learning Materials, 1982). The photographs were selected by three program staff who did not serve as facilitators for the study. Selection was based on unambiguous content (i.e., little or no background stimuli, a single object per picture, being

clear), and depiction of an object that would be familiar to all participants. The final stimuli chosen are listed in Appendix 1. A total of 30 stimuli were used, with two identical sets being created to allow simultaneous presentation of any two cards to both the participant and the facilitator on specific trials.

All conditions took place in the same setting, and all participants were tested in this setting, with the materials as depicted in Figure 1. The setting was in the participants' day program location and was a readily recognizable, familiar area. The facilitator and participant pair sat at one end of a long table. The table was divided lengthwise down the middle with a 182.88 cm (72") long, 73.66 cm (29") high wooden divider. At the far end of the table the divider ended in a "T", with stimulus cards able to be shown at positions A and B (see Figure 1). The cards were mounted on sheets of cardboard and positioned into slots at positions A and B. A smaller "T" at position C insured that the participant could not see any card at position B and the facilitator could not see any stimulus card at position A.

Figure 1
Materials and Setting



A researcher (either D.W. or R.P.) stood behind the "T" at the far end, largely out-of-view of the participant and facilitator, and was able to readily change the stimulus cards at A and B. The researcher could also cover both stimuli with a flip-over screen if a participant or facilitator stood or moved about. It was also important that, for each trial, the cards were hidden by temporary covering as they were positioned into the slots at positions A and B, to prevent contamination of findings through inadvertent exposure of any of the cards to the facilitator. A video camera was mounted at approximately a 30-degree angle from the end of the table (see Figure 1) for audiovisual recording of all sessions.

A keyboard device was placed on the table for participant use as shown in Figure 1. Participants used the same device that they used in normal day-to-day FC sessions, a portable word processor (i.e., Tandy WP-2) or a cardboard letterboard (a printed representation of a standard QWERTY keyboard laminated on a stiff backing). Use of the word processor was preferred because this permitted exact transcription of any typed output by the participants. For those participants who preferred the letterboard, the facilitator verbally called-out each letter or "key" as it was touched.

Two researchers were employed, with each conducting exactly 50% of the trials. The stimulus cards used and responses obtained were independently noted and verified by each researcher.

Procedures

Conditions. There were three conditions, defined as follows:

- **Condition F**: (Facilitated). The participant was presented with a stimulus card at position A and the facilitator was presented with no stimulus card. The participant was asked to identify the picture through FC in the manner that was normally used in FC by that participant/facilitator pair.

- **Condition NF**: (Not Facilitated). The participant was presented with a stimulus and the facilitator was not (as in condition F). However, in this condition the facilitator and participant were not permitted to engage in physical contact. The facilitator could use verbal prompts.

- **Condition D**: (Distractor). Both the participant and the facilitator were shown stimulus cards on each trial, but 50% of the time the cards were the same (D-same) and 50% of the time the cards were different (D-different). FC was then used in the normal manner for that pair.

Readers should note that from the viewpoint of the participant taking part in the study, the D and F conditions are essentially the same; these conditions are different only for the facilitator.

Participants took part in two sessions with each of the three conditions, for a total of six blocks (2 F, 2 NF, and 2 D). The design for presentaion of stimuli specified that five stimulus trials were to be presented in each session, constituting a block of trials, because many of the participants evidenced brief attention span or high distractibility. In some instances more than one session was required to complete a block, and in three instances two blocks were completed during one session, depending on the behavior of the participant and the judgement of the facilitator. The order of presentation of conditions was partially counterbalanced for a total of four different orderings. Counterbalancing was partial because the NF condition was never presented first and was never presented twice in succession. It was anticipated that the NF condition would be the least preferred condition and possibly could arouse anxiety for some of the participants. Each participant was randomly assigned to one of the four orderings of conditions (groups) shown in Table 2, with three participants in each ordering. Both the F and D conditions were preceded by the NF condition an equal number of times.

Table 2:
Order of Presentation of Conditions

	Session Number					
	1	2	3	4	5	6
Group 1	F	NF	D	NF	D	F
Group 2	F	D	NF	D	F	NF
Group 3	D	NF	F	NF	F	D
Group 4	D	F	NF	F	D	NF

Presentation of Stimuli. The same 30 stimuli were presented to all subjects. The stimuli were divided into six groups of five cards each. The first group of cards was shown to all participants during their first session (regardless of condition type), the second group of cards was shown to all participants during their second session, and so forth. Thus, the different stimuli were distributed among the different conditions relatively evenly.

The order of presentation of the five stimuli in each group was varied randomly from subject to subject during the D condition. During the D condition a duplicate set of stimulus cards was employed so that both the participant and the facilitator would view the same card in 50% of the D trials. During trials when different cards were to be shown to the participant and facilitator, predetermined but randomly generated pairings of the five cards designated for that session were used.

Throughout the study, the stimulus cards were kept confidential to prevent general knowledge of the content of the cards from spreading through the Autism Program and contaminating results. Even so, facilitators acquired knowledge about some of the pictures during their exposure to them in the D condition.

Instructions and Prompts. In obtaining consent, facilitators were asked to explain the nature of the present study to participants. Seven major points were covered in this explanation:

1. Our primary purpose is to show others that facilitated communication is real.

2. We want others to know that what is typed are your words, not mine (i.e., the facilitator's).

3. To do this we are going to do a research project.

4. We would like your help in doing this.

5. We will be showing you some pictures and ask that you type in the name of the picture. This way we can prove that you are controlling the typing.

6. We will be filming while you and I (the facilitator) do this. This way we can show others that I could not see the picture.

7. Are you willing to help by taking part in the project? (all participants responded positively via FC).

Presentation of stimuli required some communication between the researcher and the participant/facilitator pair. When the facilitator judged the participant's response to a stimulus to be complete, he or she would state this to the researcher. Once the researcher had placed the new card(s) in position, he stated "Here is card # ___". For the participants who used the word processors, the facilitator noted the beginning and end of each trial by typing "Card # ___". All other typing was included as responses to stimuli.

All participant/facilitator pairs took part in one videotaped practice session. This practice session served to help desensitize subjects to the setting and to obtain a representative sample of the facilitators' verbal prompts and reinforcing statements. These prompts and statements were typed up and then edited as desired by each facilitator. Individual typed lists of prompts were used as a reference by the facilitators during all conditions. This helped to insure a reasonable equality of verbal support across conditions. Additional desensitization activities entailed having most of the participants sit at the "T" apparatus table as often as possible prior to the onset of the study. In the weeks prior to beginning the research trials, they were encouraged to spend time there on a regular basis to become more accustomed to the setting.

Within the above parameters, facilitators were given total control over the sessions. Sessions were terminated or postponed at any time that the facilitator chose. Reinforcing statements or rewards were used at the discretion of each facilitator. Communication between facilitators and participants was unstructured (with the exception of prompting to look at and describe the picture card) and often involved extraneous conversation (according to the typed FC output). There were no time limits or constraints beyond those of the normal operation of the day program.

Interpretation of Participants' Responses. Given the typical nature of FC output (e.g., extra characters, missing characters, and phonetic spelling) there is often a degree of interpretation or decoding required. For some individuals the extent that decoding is necessary can be great. A second concern in interpreting responses was uncertainty as to whether a particular response was, in fact, a reasonable or accurate label of one of the stimulus cards. To help resolve these issues, a team of five judges was used to rate all responses, with a majority decision used as the final rating for each response.

After all the trials were completed, the responses were typed on separate sheets with no identifying information regarding participant or condition. The judges were trained in interpreting FC output protocols, including samples of open-ended conversations with various individuals and facilitators. The judges were shown all stimulus cards simultaneously, with the cards mounted on a large display panel. The judging process involved each judge (individually) reviewing each response and choosing which picture card, if any, he or she felt was the intended target for each response. This matching procedure was chosen to avoid false negative ratings (i.e., matches that should have occurred but that did not). The procedure did, however, risk an increase in false positive ratings because the judges were required to match responses to pictures, not to interpret them in isolation.

There were five judges for each response, with four of the five considered to be impartial and uninvolved professionals because they had not been previously engaged in FC activity within the Autism Program. Each of these four judges worked elsewhere at O. D. Heck Developmental Center. The fifth judge for each participant was the facilitator who took part in the study with him or her.

All judges had attended a two-hour training session on FC prior to the study, and at the time of their involvement, additional training on interpreting or decoding FC output. All judges were seleced based on their motivation and interest in the FC phenomenon. The judges included one Ph.D. psychologist, one master's level psychologist, and two registered pharmacists.

Findings

Initial Hypotheses

1. Under the F condition, when taking part in FC, participants will identify a significantly greater number of objects than under the NF condition, when receiving only verbal encouragement. This will indicate a simple positive FC effect.

2. The extent that participants correctly identify objects in the F condition will be similar to (significantly correlated with) the extent to which they correctly identify objects in the D condition. This will indicate the generality of the simple positive FC effect.

3. Under the D condition, with FC in use, participants will produce facilitated messages which identify only stimuli which they were shown (more specifically, participants will not identify stimuli shown only to the facilitators). This will validate the origin of the messages.

Stated more generally, the principal investigator expected that a portion of correct F condition responses would be obtained, sufficient to provide at least some confirmation for the validity of the facilitated communications of these participants. In the Australian studies there have been some findings indicating facilitator influence of messages produced by some individuals. Although some influence was reasonably expected, we also anticipated that participant responses would remain similar under the F and D conditions.

Main Findings

Readers should recognize that although it would appear that participants' responses could be only correct or incorrect, more than two response categories must be defined to clarify the findings:

1. Correct responses (CRs) can occur under the F condition or NF condition when the facilitator sees no stimulus, or under the D-different condition when the participant sees one card and the facilitator sees the other, and the participant responds accurately to the card he or she sees. Potentially correct responses could occur under the D-same condition, but these would not support the hypothesis of valid communication unless the participant also responded correctly to their own cards in the D-different condition.

2. Pseudo-correct responses (PCRs) can occur in the D-same condition if the typing produces accurate responses to the facilitator's card and also accurate responses to the facilitator's card in the D-different condition (suggesting that responses in both conditions are to the facilitator's card).

3. Facilitator-stimulus correct responses (FSCRs) can occur in the D-different condition when the typing produces a label or description of the facilitator's card that the participant cannot see. Such responses demonstrate facilitator influence.

4. Incorrect object responses (IORs) can occur when the typing produces a recognizable object name or description unrelated to the stimulus object on a trial in any condition (e.g., bird for basketball).

5. Incorrect nonsense responses (INRs) can occur when the typing produces indecipherable strings of characters, symbols, and spaces or irrelevant conversational content as the response on a trial in any condition.

Participants Fail to Identify Objects Under Different Conditions. There were a total of 180 trials that allowed for demonstration of valid FC: the ten F condition trials for all twelve subjects (120 trials), and 50% of the D condition trials (60 trials; those where the participant and facilitator had different cards). Of these 180 trials there were no clear correct responses to the participant's stimulus card. Results of the findings are shown in Table 3.

The judges identified one correct response in the F condition. However, the typed response was "food" to the stimulus card depicting some bread. Because this was the only food item among the pictures, the judges were able to make this match successfully.

Another category label type of response also occurred in the F condition, "vehicle" in response to the picture of a van. The judges did not consider this a correct response, apparently because there were two pictures of vehicles (i.e., a car and a van) and "vehicle" failed to discriminate between them. As will be elaborated below, these two responses were among a larger number of such responses by two subjects who had the same facilitator. Because most of the stimuli (see Appendix I) could be classified in a small number of broad categories, the use of category labels as responses was a significant factor which could obscure interpretation of the findings. Facilitators were aware that the cards all presented stimuli that were

common in the participants' everyday experiences.

Participants Confirm Incorrect Responses. In addition to the total absence of correct responses in the F condition there was a preponderance of incorrect responses that consisted of recognizable object labels that were unrelated to the stimuli. In the F condition, among 120 trials, there were 80 such responses (e.g., the stimulus card depicted a pair of shoes and the typed response was "boat"). As recommended by Biklen (1992d), facilitators frequently repeated the typed response and asked whether that was the response the participant wished to make. Participants regularly responded, in combination with the incorrect label, by typing "Y" or "Yes". Assuming that the participant generated the incorrect object name that was unrelated to the stimulus, and then indicated that this was the intended response, this behavior pattern is puzzling and perhaps inexplicable without invoking facilitator influence. The preponderance of incorrect but recognizable object-name responses that occurred in the F condition also occurred in the D condition, with 52 responses (43.3% of total D trials).

Table 3:
Performance Under the F and D Conditions

F CONDITION

Responses	Clear Correct Response	Partial Correct Response	Incorrect Object Response	Incorrect Nonsense Response
N = 120	0	2	80	38

D CONDITION

	Clear Correct Response	Pseudo-Correct Response	Facilitator-Stimulus Correct Response	Incorrect Object Response	Incorrect Nonsense Response
Different Cards (N = 60)	0	0	12	26	22
Same Cards[1] (N = 60)	0	14	0	26	20

[1] Seemingly correct responses are assigned to pseudo-correct because facilitator-stimulus correct responses under the D-Different conditions indicated that these participants were responding to the facilitators cards that they did not see. Response categories are defined at the beginning of the Findings section.

Facilitators Influence Responses. In the trials within the D condition, when different stimulus cards were shown to the participant and the facilitator, there were twelve (12) responses that were judged to

be correct to the card shown to the facilitator (FSCRs), and no responses judged correct to the participant's card. This represents 20% of possible responses under this sub-condition. In addition, three other responses which were missed by the judges could be considered to be correct if seen from the point of view of comparison of the response to the given picture for the facilitator (e.g., "clothing" was typed in response to a stimulus picture of a jacket. The judges did not identify this as correct because there were at least five items of clothing among the stimuli). These twelve to fifteen responses clearly demonstrate facilitator influence upon the content of the communication attributed to the participants. There was no possible way that the participants could have independently and accurately identified any of the cards that they did not see. Even if the participants knew what all of the stimuli were, they could have identified only 3.33% (100%/30 pictures) by chance. This proportion is significantly less than the proportion that was accurately identified (i.e., 20%). *The only possible (and plausible) explanation of this finding is that these participants' responses were influenced by their facilitators.*

In the D condition trials when the cards were the same there were 14 responses that were rated as correct by the judges. This represents 23.3% of possible responses under this sub-condition, which is not significantly different (t-test, $p > .05$ one-tailed, $p > .10$ two-tailed) from the 20% accuracy rate obtained for trials when the stimuli were different for facilitator and participant. The Pearson product-moment correlation between the number of accurate responses in the different stimuli and same stimuli trials within the D condition, and within participants and facilitators, was $r = .53$. This correlation is suggestive, considering the implication that perhaps possibly 25% of the variance in accuracy among participant-facilitator pairs was accounted for by the pairings themselves, but not compelling considering that there were only twelve pairs. A chi-square test across the D and F conditions and the three categories of number pseudo- or facilitator-stimulus correct, number incorrect but recognizable words, and number of nonsense responses showed that these were distributed differently among the F and D conditions, $X^2(2, 235) = 28.3$, $p < .01$ ($C = .33$ indicating a strong difference). Similarly, a repeated measures analysis of variance indicated that scores were significantly different between the F, D-same, and D-different conditions, $F(2,24) = 6.49$, $p < .006$). Because t-tests indicated that performance in the D-same and D-different sub-conditions was not significantly different, this latter finding is due to significant differences between the F and D-sub-conditions.

In consideration of the benefits that FC was expected to yield for the participants in this study, regrettably, *the combination of the absence of any accurate responses in the F condition (that emulated the "traditional" or "typical" FC context for these pairs) and the presence of a significant number of accurate responses to the stimuli shown to the facilitators when these were not available to the participants conclusively and incontrovertibly proves that, for this sample of FC participants, their communications were influenced (i.e., altered or determined) by their respective facilitators.*

More Specific and Unexpected Findings

The total number of incorrect object responses ($N = 52$) in the D condition is less than the total incorrect object responses ($N = 80$) in the F condition, owing to the significant number of mock-correct responses (i.e., PCRs and FSCRs) to the facilitator's card in the D condition (regardless of whether it was the same as or different from the participant's card). Indeed, the Pearson product moment correlation between the total number of pseudo-correct responses in the D condition and the number of facilitator-stimulus correct responses by participants to the card they did not see is $r = .91$ (see Table 4).

The number of nonsense responses is virtually identical across conditions. The number of incorrect responses in the F-condition, among pairs, is nearly identical to the number of incorrect plus mock-correct responses in the D condition. One especially plausible explanation of this finding is that participant-facilitator pairs performed with marked stability across conditions, substituting incorrect responses in the F condition with pseudo-correct ones in the D condition as the facilitators were shown the stimulus cards.

Notable stability across participant-facilitator pairs was observed. All twelve pairs failed to achieve correct response patterns in the F condition. Eight of the nine participant-facilitator pairs clearly manifest facilitator influence over content of typed communications in the D condition. Incorrect but recognizable (by the standard of uninvolved judges) object-name responses occurred in all of the participant-facilitator pairs. The only (1 of 9) participant-facilitator pair that failed to demonstrate facilitator control in the D condition produced virtually all nonsense responses.

The above specific and unexpected findings are, even accepting the constraints that are implied by a small number of participants, unusually dramatic, consistent, and very clear. For these pairs, composed entirely of participants who are almost a stereotype (in literary description) of the most appropriate treatment population, and paraprofessionals and professionals who are both skilled and experienced in the sub-field of autism and highly motivated to serve these people effectively, there is very clear, uncontestable proof of what we can only call facilitator *control*.

Table 4:
Responses Under D-Same and D-Different Sub-Conditions

Responses	D-Same (Correct to Participant's Card)[1]	D-Different (Correct to Facilitator's Card)
Participants		
1	0	0
2	1	1
3	2	0
4	1	1
5	2	2
6	2	0
7	1	0
8	2	2
9	3	4
10	0	0
11	0	1
12	0	1

[1] Participant and facilitator saw the same card; response may have been to the facilitator's card, as in the D-Different condition.

Some Participants Had the Same Facilitators

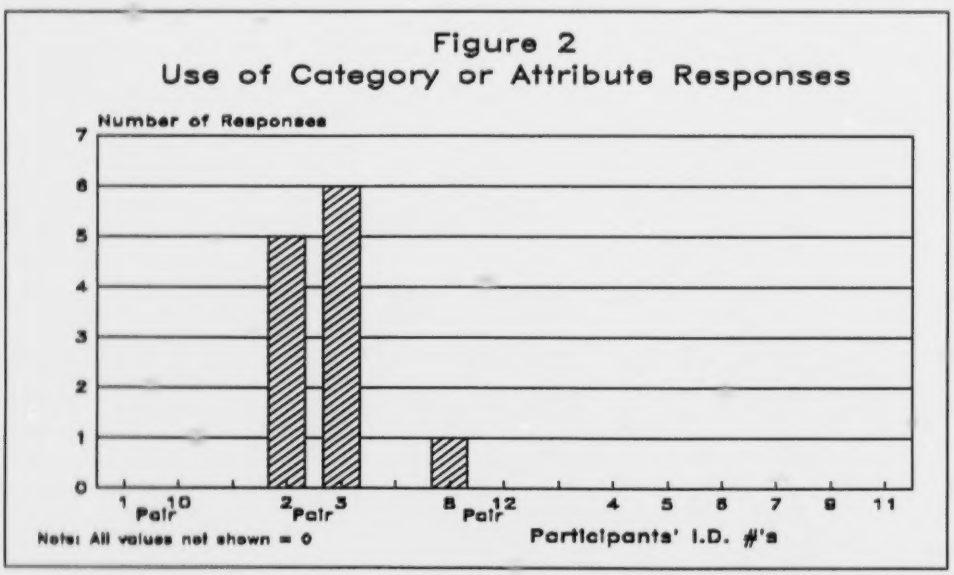
One unplanned but fortuitous aspect of the study was that three facilitators were paired with two participants each. An obvious source of secondary support for facilitator influence effects lies in the comparison of responses among and between these pairs. Several variabies were compared, with each providing evidence for facilitator influence.

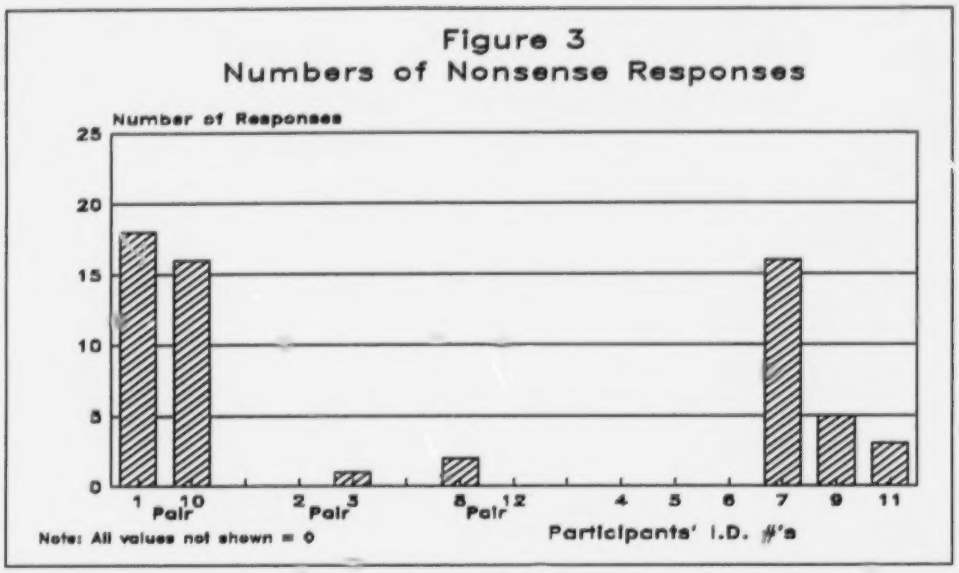
Idiosyncratic Word Usage. The output of the six paired participants was examined for any recognizable word that was not related to a stimulus card and was not an article, pronoun, or other small

word. Such words were listed for each participant, and any words common to any two participants were noted. Among the six particpants there are fifteen possible participant pairings. Three of these pairings are those with the same facilitators; the other twelve pairs would have different facilitators. Therefore, all else being equal, there should be four times as many shared words among the twelve pairs as among the three pairs with shared facilitators. The results were nearly the reverse of this pattern, with ten shared words found among the three pairs with the shared facilitators and only three word pairs among the other twelve pairs (a ratio of 10:3 as opposed to the expected 1:4). The chances of two participants typing out the same word increased by more than 1300% when they had the same facilitator. A Chi-square analysis of the differences between these two ratios provided a value of $\underline{X}^2(280) = 174$ ($\underline{C} = .62$), indicating a dramatic difference.

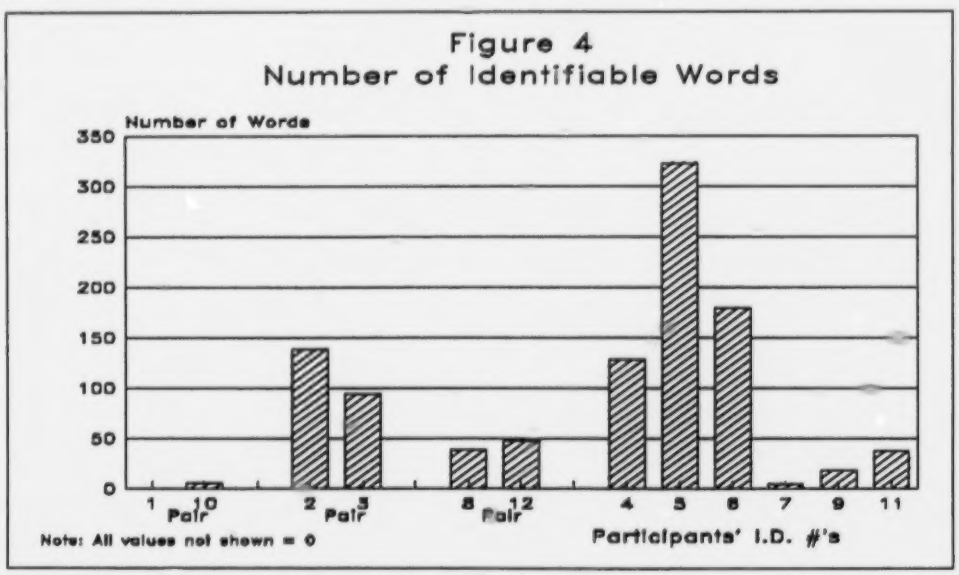
Occurrences of Category Responses. The only responses that could be construed as correct in the F condition were the category labels of "food" and "vehicle". In examining the use of such responses among all participants, it was found that two participants were the predominant source of these responses and these participants had the same facilitator (see Figure 2). This suggests a strategy (used unknowingly) by one facilitator of relatively broad category names that would help to achieve a higher ratio of correct responses (and which accounted for the only responses that could be construed as correct). The correlation among number of category or attribute responses across pairs with shared facilitators was $\underline{r} = .98$. This finding also supports the presence of facilitator influence.

Occurrences of Nonsense Responses. Examples of nonsense responses produced by participants are "GFZCVMX", "JGVVAMVYJX2", and "TSABRTYREV". As the graph shown as Figure 3 indicates, three particpants were the predominant source of these responses and two of them had the same facilitator. (The correlation among number of nonsense responses across pairs with shared facilitators is $\underline{r} = .99$ and the correlation among number of identifiable words produced across these pairs was $r = .98$, see Figure 4). Facilitator influence is strongly suggested because these two participants produced almost entirely nonsense responses. This pattern can be explained by an earnest effort by this facilitator not to influence the typing, and succeeding in this effort.





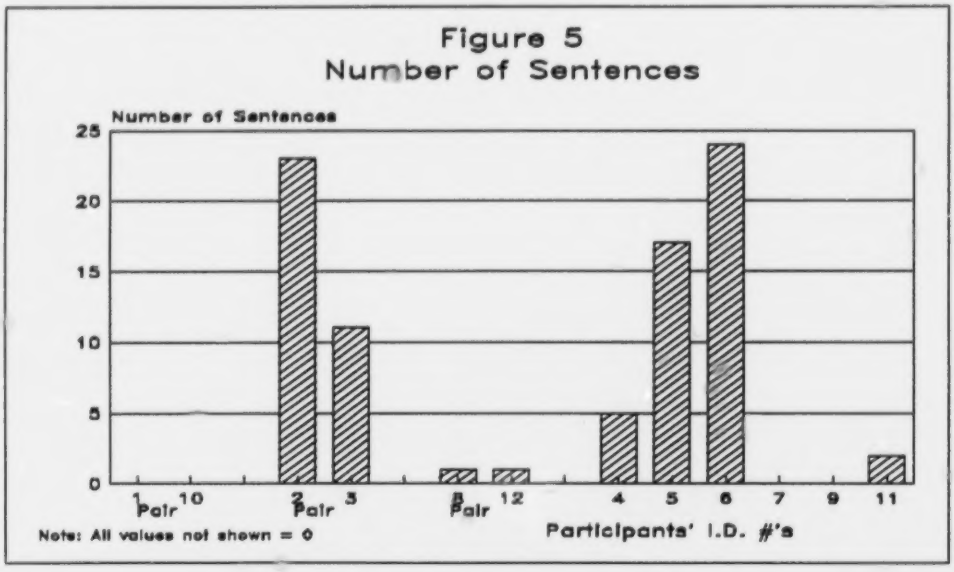
Number of Words and Sentences. Other variables examined included the number of recognizable words and the number of identifiable sentences (the latter being defined as a complete gramatically correct construction, even if containing extraneous letters). As inspection of Figures 4 and 5 indicates, these results are also consistent with facilitator influence when participants had the same facilitator.



Qualitative Considerations

The preceding findings provide a compelling demonstration of consistent, generalized, and probably continuous influence of facilitators. Once the presence of this influence is recognized, other observations that are otherwise difficult to comprehend become readily explainable.

Facilitator Focus of Attention. A very consistent observation (evident during data collection and in review of the videotapes) is that facilitators stared continuously at the keyboard. In contrast, the participant was typically not looking at the keyboard during typing. This pattern was observed to be the norm, not the exception. Throughout the study, as well as during all naturalistic FC occurrences, the researchers never once observed a facilitator who was not looking directly at the keyboard during typing. This attention is so focused that the facilitators appeared to be completely unaware of the participant's behavior, including communicative behavior.



One dramatic example of this phenomenon was when a participant, upon viewing a stimulus card, appeared to accurately perceive and understand the stimulus (i.e., made a manual sign for the picture, verbally uttered the initial consonant sound for the picture, and pointed intensely at the card while doing so), yet the typed response was unrelated to the picture. The facilitator, who was staring intensely at the keyboard, appeared unaware of these behaviors.

Subjective Experiences of Mind-Reading. At least three staff involved with FC in the Autism Program (but not taking part in this study) reported what they referred to as mind-reading. During facilitation, participants appeared to type out information that was so highly personal to the facilitator that they were shocked by the occurrence. They all stated that there was absolutely no way that the participant could have learned this information, and, in fact, no way that any other staff could have known this. Because they were confident that they were not influencing the typing, they concluded that some telepathic phenomenon must be occurring. (Indeed, the subjective experience of mind-reading during FC has been reported in the Australian reports [see Cummins & Prior, 1992] and was reported by a staff member at O. D. Heck to have been mentioned independently by at least one person when attending a university-based FC training session.) Although one could entertain the notion that paranormal processes

account for this phenomenon, the more parsimonious and credible explanation is unintended facilitator influence.

Ease of Decoding of FC Output. Although we have not objectively measured this phenomenon, an observation made by many of the staff involved with FC is that facilitators often translate or decode the FC output virtually immediately, whereas others take much longer. Other staff sometimes disagree about the content of the FC output. Trained facilitators explain ease of decoding on the basis of rapport with the participant, familiarity with the person's idiosyncratic typing, and similar considerations. Again, facilitator influence is an equally plausible and more direct explanation.

Negative Comments Attributed to Participants. Throughout the research process, nearly all of the participants, at one time or another, typed out (via FC) comments that were antagonistic toward the research or researchers. Examples include such statements as: "You think I'm stupid," "I gave the wrong answer on purpose," "You tricked me into doing this," "I'm going to kill him," and "This insults me."

These statements are difficult to reconcile with the participants' situation. First, these participants were clearly in a position where they have everything to gain and nothing to lose by demonstrating the validity of their typing. Secondly, the purpose of the study was explained to each participant in the process of obtaining consent. These statements are essentially consistent with expectations for participant reactions to being tested that have been discussed by Biklen (1991). Because the facilitators are aware of these expectations, these statements can also be logically explained as the result of facilitator influence, reflecting facilitator anxiety about the accuracy of the responses that were being produced during the stimulus trials.

Summary of Support for the Initial Hypotheses

1. Under the F condition, when taking part in FC, participants will identify a significantly greater number of objects than under the NF condition, when receiving only verbal encouragement. This will indicate a simple positive FC effect.

This hypothesis was not supported. Although we have not presented the findings for the NF condition, all responses produced under that condition were nonsense responses. A simple positive FC effect was not found. When a stimulus was shown only to a participant, his or her accuracy in naming pictures was no better with FC than without FC.

2. The extent that participants correctly identify objects in the F condition will be similar to (significantly correlated with) the extent to which they correctly identify objects in the D condition. This will indicate the generality of the simple positive FC effect.

This hypothesis was not supported. There was no relationship between how accurately participants responded in these two different conditions. The only "correct" responses occurred in the D condition and correct responding to stimulus cards occurred only when the facilitator saw the same card as the participant. This finding strongly suggests the presence of facilitator influence.

3. Under the D condition, with FC in use, participants will produce facilitated messages which identify only stimuli that they were shown (more specifically, participants will not identify stimuli shown only to the facilitators). This will validate the origin of the messages.

This hypothesis was not supported. When the participant and the facilitator saw the same card, some responses to the participant's card were correct, but when the participant and the facilitator saw different cards the only "correct" responses made were to the facilitator's card. This finding proves the presence of facilitator influence.

In addition to the clearcut character of the above findings, a variety of other aspects of the pairs' responses were considered and these provided evidence consistent with the presence of facilitator influence. Qualitative issues were also raised and can be more plausibly and parsimoniously explained on the basis of facilitator influence than by other premises that are presented within the FC literature.

Discussion

Implications of Facilitator Control

Proponents of FC have argued that blind testing approaches present an inappropriate type of challenge for people who use FC because it indicates skepticism by the facilitator and undermines the confidence of the person being facilitated (Kurtz, 1992). The rationale for qualitative testing is based in great part on self-report content that has been produced through FC. It is possible to suggest that confidence and skepticism factors accounted for the poor performance of participants in the F (facilitated) condition. However, this is highly improbable because this study proved, that for these twelve people whom many clinicians believed were validly communicating through FC, all were being systematically and unknowingly influenced by their facilitators. In fact, the nature of the findings permits us to assert that the output in FC from these participants was not only influenced, but rather controlled and determined by the facilitators.

To all appearances, these participants had been producing thoughtful communications. All could produce simple sentences or word combinations in FC, and several had consistently engaged in interactive conversations using FC. It was believed that this output reflected the valid expressions of the participants. These facilitators did not discern that they were influencing the participants. The inability to accurately detect such influence may lie in the nature of the FC technique itself. As Kurtz (1992) notes: "Fundamental to success is the facilitator's self-fulfilling conviction that there exists for the learner a level of cognition as yet unobserved." However, this reasoning is based on the assumption that much of the content about the FC process and self-reports produced by people with FC is uncontaminated by facilitator influence. Our findings suggest the likelihood that in some instances, and perhaps even in a large proportion of instances, the content of FC is being determined by the facilitator, and probably reflects their own beliefs about FC. We would thus expect little disconfirmation of assumptions about FC to emerge from content obtained using FC.

We suggest that the issue of verifying the validity of communications is too important to use only informal, uncontrolled, and ultimately circumstantial, criteria. We recommend that quantitative procedures be established to independently verify important communications. As our findings suggest, the facilitator is in an extremely poor position to "test" the validity of FC with any acceptable degree of objectivity. As long as physical contact, and to a lesser degree verbal prompting, exists as a component of individual FC, the possibility of facilitator influence must be acknowledged. Self-evidently, anyone who does use a keyboard independently, without physical contact or verbal prompts, is communicating independently and the validity (although not necessarily the veracity) of the output they produce can be assumed.

One issue that needs to be addressed is how generalizable our findings may be. Although there were only twelve participants and nine facilitators, this sample may be reasonably generalizable. There is no question that these people have valid diagnoses of autism. There is also no question that these people are essentially non-verbal and generally non-communicative. Each had lived much of their childhood in families where there were opportunities for incidental language learning, and many such opportunities were also presented through training within the Autism Program and previous residential settings. These people appear to be ideal candidates for FC as described in the qualitative literature.

There is nothing especially remarkable about the facilitators. They are a mixture of five professional and four direct care staff. Perhaps their greatest distinction from other staff who work with people with developmental disabilities is that they are considered to be especially committed to and concerned about the well-being of the people they serve. All of the facilitators believed that the participants were validly communicating through FC and all believed firmly in the foundation, premises, and processes of FC. All of the participants were unable to produce correct responses in the F condition and seven of the participants were influenced to respond to unseen stimuli shown to facilitators in the D condition. All but one of the facilitators engaged in some form of influence over the content of the FC output. Although produced in a single study situation, the consistency of findings across pairs constitutes a successful local eleven-fold replication of facilitator control. Because of these considerations, this study provides evidence that facilitator control and determination of the content of FC output may be considerably more common than previously had been thought possible. Certainly, future research on FC should address the issue of facilitator influence, both to recognize its effect on any obtained results and also to investigate its parameters.

Administrative and Policy Considerations

Research that sheds light on the effectiveness of therapeutic interventions is of particular importance to direct care staff, clinicians, and administrators entrusted with daily decisions about care and treatment. Certainly, for staff who took part in the research, the findings were of great relevance and were eagerly anticipated. Many staff who had been facilitating with individuals for months had come to believe in the validity of the communications their partners were producing, and felt deeply that they had in many cases "broken through" to a individual for whom they cared a great deal and with whom they could now communicate. We anticipated a strong reaction from staff who had become committed to FC.

Administrative and research staff at the facility struggled with the most prudent and ethical course of action to take in (a) sharing and interpreting the negative findings with facilitators, other facility staff, family members, and other centers engaging in the use of FC; (b) providing debriefing support to facilitators and family members who might react emotionally to the findings; (c) disseminating the findings to the broader professional community, and dealing with the inevitable challenges to their implications; (d) allowing the continued use of FC at the facility, and if so, under what conditions and for what purposes; and (e) dealing with those "facilitated communications" that impact directly on individual rights for self-determination, protection, and care. Each of these issues present important challenges to administrators, program managers, and researchers as they translate findings about the efficacy of treatments into acceptable practice.

Interpreting Findings, and Providing Debriefing Support

One can expect facilitators who participate in this type of study and who practice FC daily to be extremely interested in the research findings. Obviously, it is vital to inform them as soon as possible about the results, as a form of group debriefing. What follows is a description of our own experience of dissemination of the findings to the facilitators. Such experiences can be expected from any debriefing with facilitators that casts doubt on the authenticity of the communications they believe to be to be valid.

One can anticipate staff to be shocked and stunned by negative results. They may display many of the emotional responses one would expect when a cherished belief is challenged by strong facts. There will be denial, and alternate explanations will be offered for the lack of positive findings of FC. Many of these explanations will involve either the participants' unwillingness to participate (recall that all participants in the present study had been fully informed of the research goals and procedures, and had consented), or the lack of the task's "ecological validity" (picture naming was somehow less motivating, or more difficult, than producing new speech). Facilitators will point to the breakdown in trust that occurs under test conditions, when the validity of FC is being challenged; it will be argued that testing

interferes with the "bond" they normally have with the participant. However, any evidence in support of facilitator influence is much more difficult for staff to rationalize.

Facilitators will also express concern over "losing " FC as an important daily activity. The social reinforcement and intimacy created with individuals over many months of FC are hard to give up, and no replacement activities that are as meaningful are easily identified. Many staff feel strongly that facilitating represents a whole new approach to their relationships with the people they work with, and has become a primary source of motivation in their jobs.

Along with these reactions, one will observe anger, guilt, and confusion among facilitators that is expressed in terms of questioning (a) how they could have been influencing the communications without being aware of it, and (b) whether there was some character trait or defect that all facilitators tend to have in common. One should attempt to normalize these feelings by placing their experience in the broader context of many previous treatments that didn't prove efficacious under rigorous investigation, and the bitter disappointment that caregivers inevitably feel when this occurs. *It is important to reiterate that there is no evidence that facilitator influence is purposeful or intentional.* Quite the contrary, the present data suggest that facilitator influence occurred outside of awareness. Rather than self-reproach, it is helpful to suggest that only the most dedicated staff are likely to invest the commitment and effort necessary to develop an innovative new technique. One can also provide reassurance that their feelings are temporary, there is much to be proud of in the new knowledge they have contributed, and that the door remains open for the ventilation of feelings and continued dialogue.

Follow-up meetings should also be scheduled rapidly with parents and family members of individuals in the facility who are being facilitated. A presentation on the findings similar to the one for staff should be made, with ample opportunity for discussion, questions, and emotional venting. One can expect that many family members may react with less intensity to negative findings than do staff who have been using FC. Some family members may accept the findings questioning the validity of FC more easily, perhaps because of previous experiences with "panaceas" and "miracle cures" that ultimately did not pan out.

Dissemination of Findings to the Professional Community

As previously described, hard evidence for the authenticity of FC is nearly nonexistent. The present research represents one of the few attempts made to date to empirically validate the authenticity of facilitated communications. The unequivocal nature of the findings indicates that the results are salient to those currently practicing FC. Clearly, there is a need to replicate these results with both the same methodology and different research strategies. We therefore felt compelled to publish the findings as rapidly as possible in order that other laboratories, programs, and facilities could either confirm or refute the observations.

The present findings are not generalizable to all occurrences of FC, and we are making no claims that the practice cannot produce authentic communication for certain people under some conditions of facilitation. Indeed, one important research goal is to define the people for whom, and conditions under which, valid facilitation may occur.

Use of FC, and Implications for Individual Rights and Protection

Because of the intimate nature of the FC relationship, and the apparent positive impact that facilitation has upon socialization and interaction among certain staff and people with with developmental disabilities, a program that fails to validate FC has a difficult decision to make regarding the continued use of FC in the program. We recommend that programs (a) allow facilitation to continue, while (b)

making the negative findings generally known. Staff should be told that they may continue communicating with people using facilitation, but that such communication will not be accepted as valid unless the authenticity can be otherwise confirmed. Staff also can be challenged to propose strategies for demonstrating valid facilitation.

One of the most important issues to be addressed in connection with FC deals with whether or not one recognizes as valid, and therefore acts upon, communications involving (a) accusations of abuse or mistreatment, (b) statements of self-determination and personal preference regarding living conditions, daily activities, and social relationships, and (c) self reports of health and medical relevance. There is obviously the potential for great harm here, both in accepting as valid communications that are not, or conversely ignoring authentic expressions made by individuals who are dependent on others for their care. Current practice in the field of developmental disabilities emphasizes the primacy of individual choice; we hold as most dear the need for people to actively participate in, and make decisions about, all aspects of care, treatment, service planning, and living arrangements. Accepting a communication subject to facilitator influence as representing the preferences of the person with disabilities undermines the very essence of person-centered planning and the rights of individuals to be self-determining. Few areas of investigation could have more profound implications for the operation of programs serving people with developmental disabilities.

We recommend that sensitive communications produced through facilitation not be accepted as valid unless they can be independently confirmed. This can occur in a number of ways. There needs to be corroborating evidence for accusations, and these must be investigated in the normal manner. Expressions of self-determination can be made reliable when the individual facilitates the same message with several facilitators independent of each other. Some individuals can also reinforce their facilitated communications through other communication modalities that they may use (e.g., formal signing or non-verbal expression). As indicated in our research paradigm, there are also many avenues for exploring the internal consistency of communications produced by individuals over time. And of course, in the case of examples where information is communicated that could "only be known to the individual," the possibility for contamination of the communication, or knowledge by the facilitator, must be explored carefully.

One should also bear in mind that even though FC may have been validated for a person (using a picture naming design as in the present study, or a message-passing paradigm as has been used elsewhere and is easy to implement spontaneously without any equipment), this in no way assures us of the authenticity or veracity of any *particular* statement typed. Therefore it is important that each sensitive communication be verified for authenticity on every occasion. Because facilitator influence has been documented in several research studies of FC, one cannot be sure that the facilitator has not exerted control over the particular communication under consideration. Each instance will require independent verification and external corroboration if it is to be considered a valid expression of the individual, and acted upon as such.

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Appendix I:
Picture Stimuli Used

Session Number					
1	2	3	4	5	6
broom	scissors	desk	car	puzzle[2]	light switch
bowling[1]	pan	belt	telephone	toothbrush	comb
shoes	brush	watch	fork	foot	eye glasses
keys	television	pillow	bread	shirt	pants
socks	pencil	books	crayons	coat	van

[1] This picture includes a bowling ball and a bowling pin. All participants have experience with bowling because there is a bowling alley (several lanes) in the developmental center.
[2] The was a picture of a jigsaw puzzle, nearly completely put together, depicting two kittens.